



# House of Representatives

General Assembly

**File No. 589**

January Session, 2015

Substitute House Bill No. 6989

*House of Representatives, April 13, 2015*

The Committee on Energy and Technology reported through REP. REED of the 102nd Dist., Chairperson of the Committee on the part of the House, that the substitute bill ought to pass.

## ***AN ACT CONCERNING DISTRIBUTED ENERGY RESOURCES.***

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. Section 16-19ff of the general statutes is repealed and the  
2 following is substituted in lieu thereof (*Effective July 1, 2015*):

3 (a) Notwithstanding any provisions of the general statutes to the  
4 contrary, each electric distribution company shall allow the installation  
5 of submeters for the purpose of fairly allocating the costs associated  
6 with an individual customer's usage of electricity provided by an  
7 electric distribution company to the submetering entity at (1) a  
8 recreational campground, (2) individual slips at marinas for metering  
9 the electric use by individual boat owners, or (3) [commercial,  
10 industrial, multifamily residential or multiuse buildings where the  
11 electric power or thermal energy is provided by a Class I renewable  
12 energy source, as defined in section 16-1, or a combined heat and  
13 power system, as defined in section 16-1, or (4) in] any other location  
14 as approved by the authority where submetering promotes the state's  
15 energy goals, as described in the Comprehensive Energy Strategy,

16 while protecting consumers against termination of residential utility  
17 service or other related issues. Each entity approved to submeter by  
18 the Public Utilities Regulatory Authority, pursuant to subsection (c) of  
19 this section, shall provide electricity to any allowed facility, as  
20 described in this subsection, at a rate no greater than the rate charged  
21 to that customer class for the service territory in which such allowed  
22 facility is located, provided nothing in this section shall permit such  
23 entity to charge a submetered account for (A) usage for any common  
24 areas of a commercial, industrial or multifamily residential building, or  
25 (B) other usage not solely for use by such account.

26 (b) The Public Utilities Regulatory Authority shall adopt  
27 regulations, in accordance with the provisions of chapter 54, to carry  
28 out the purposes of subsections (a) to (c), inclusive, of this section.  
29 Such regulations shall: (1) Require a submetered customer to pay only  
30 his portion of the energy consumed, which cost shall not exceed the  
31 amount paid by the owner of the main meter for such energy; (2)  
32 establish standards for the safe and proper installation of submeters;  
33 (3) require that the ultimate services delivered to a submetered  
34 customer are consistent with any service requirements imposed upon  
35 the company; (4) establish standards that protect a submetered  
36 customer against termination of service or other related issues; and (5)  
37 establish standards for the locations of submeters. The authority may  
38 adopt any other provisions it deems necessary to carry out the  
39 purposes of subsections (a) to (c), inclusive, of this section and section  
40 16-19ee.

41 (c) The authority shall develop an application and approval process  
42 that allows for the reasonable implementation of submetering  
43 provisions at allowed facilities, as described in subsection (a) of this  
44 section, while protecting consumers against termination of residential  
45 utility service or other related issues.

46 (d) The authority shall allow submetering of electricity provided by  
47 an approved entity to commercial, industrial, multifamily residential  
48 or multiuse buildings where the electric power is provided by a Class I

49 renewable energy source, as defined in section 16-1, or a combined  
50 heat and power system, as defined in section 16-1, generating less than  
51 three megawatts. Each entity approved to submeter such behind the  
52 meter generation by the authority, pursuant to this subsection, shall  
53 provide such electricity in accordance with the rate schedule that  
54 would be applicable to the rate class of the approved entities'  
55 customers if those customers are served by an electric distribution  
56 company in accordance with the net metering provisions of section 16-  
57 243h, provided nothing in this subsection shall permit such entity to  
58 charge a customer's account for (1) usage for any common areas of a  
59 commercial, industrial, multifamily residential or multiuse building, or  
60 (2) other usage not solely for use by such account.

61       Sec. 2. Subsection (f) of section 16a-40l of the general statutes is  
62 repealed and the following is substituted in lieu thereof (*Effective July*  
63 *1, 2015*):

64       (f) [On or before October 1, 2011, the department shall begin  
65 accepting applications for financial incentives for combined heat and  
66 power systems of not more than one megawatt of power. To qualify  
67 for such financial incentives, such combined heat and power system  
68 shall reduce energy costs at an amount equal to or greater than the  
69 amount of the installation cost of the system within ten years of the  
70 installation. The department shall review the current market  
71 conditions for such systems, including any existing federal or state  
72 financial incentives, and determine the appropriate financial incentives  
73 under this program necessary to encourage installation of such  
74 systems. Such financial incentives may include providing private  
75 financial institutions with loan loss protection or grants to lower  
76 borrowing costs. Financial incentives pursuant to this subdivision shall  
77 not exceed two hundred dollars per kilowatt. A project accepted for  
78 such incentives shall qualify for a waiver of (1) the backup power rate  
79 under section 16-243o, and (2) the requirement to provide baseload  
80 electricity under section 16-243i. Any purchase of natural gas for any  
81 combined heat and power system installed pursuant to this  
82 subdivision shall not include a distribution charge pursuant to section

83 16-243/.] The Department of Energy and Environmental Protection  
84 shall, on or before January 1, 2016, establish a program to grant awards  
85 to end use customers of electric distribution companies to fund the  
86 capital costs of combined heat and power systems of not more than  
87 twenty megawatts of nameplate capacity. Such program shall be  
88 subject to review and approval by the joint standing committee of the  
89 General Assembly having cognizance of matters relating to energy and  
90 technology. The department shall submit a report, in accordance with  
91 the provisions of section 11-4a, regarding such program to the  
92 committee. Not later than sixty calendar days after receipt of the  
93 department's report, said committee shall advise the department of its  
94 approval or modifications, if any, of the program proposed.

95 (1) Eligible projects shall receive a one-time, nonrecurring award in  
96 accordance with the following: (A) For an eligible project or  
97 combination of eligible projects that in the aggregate account for a total  
98 nameplate capacity of thirty megawatts that become operational on or  
99 before January 1, 2016, an award of four hundred fifty dollars per  
100 kilowatt of such system or systems, (B) for such eligible projects that  
101 become operational after January 1, 2016, and on or before January 1,  
102 2017, an award of two hundred fifty dollars per kilowatt of such  
103 system, (C) for such eligible projects that become operational after  
104 January 1, 2017, and on or before January 1, 2018, an award of one  
105 hundred fifty dollars per kilowatt of such system, and (D) for such  
106 eligible projects that become operational after January 1, 2018, an  
107 award of one hundred dollars per kilowatt, provided the  
108 Commissioner of Energy and Environmental Protection deems such  
109 awards to be consistent with the Comprehensive Energy Strategy,  
110 issued pursuant to section 16a-3d. The department may provide for a  
111 premium to be awarded to combined heat and power systems that  
112 serve critical facilities, as defined in section 16-243y, as amended by  
113 this act, in a microgrid or that result in avoided costs for the electric  
114 distribution company's infrastructure development plan. Payment of  
115 the award shall be made at the time each such system becomes  
116 operational. The cost of the award shall be recoverable from a  
117 nonbypassable component of rates as determined by the Public

118 Utilities Regulatory Authority. Revenues from such awards shall not  
119 be included in calculating the electric distribution company's earnings  
120 for the purpose of determining whether its rates are just and  
121 reasonable under sections 16-19, 16-19a and 16-19e. Each electric  
122 distribution company shall be made whole for all of its reasonable  
123 costs incurred in implementing the program through a fully  
124 reconciling, nonbypassable rate. Awards issued pursuant to this  
125 subsection shall not exceed fifteen million dollars annually or sixty  
126 million dollars total.

127 (2) An eligible project accepted for an award pursuant to this  
128 program shall qualify for a waiver of: (A) The backup power rate  
129 pursuant to section 16-243o, and (B) the requirement to reduce  
130 federally mandated congestion charges pursuant to section 16-243i.  
131 Any purchase of natural gas for any combined heat and power system  
132 installed pursuant to this subdivision shall not include a retail delivery  
133 charge pursuant to section 16-243l.

134 (3) All renewable energy credits associated with eligible projects  
135 that receive an award pursuant to this subsection shall be the property  
136 of the respective electric distribution company. Each electric  
137 distribution company shall sell the renewable energy credits associated  
138 with eligible projects to serve the long-term interest of ratepayers.

139 (4) Not later than January 1, 2019, and biannually thereafter, the  
140 department shall assess the number and type of retail combined heat  
141 and power systems deployed in the state and financed pursuant to the  
142 provisions of this subsection. As part of its evaluation, the department  
143 shall consider the effect on all customer rates, determine the cost-  
144 effectiveness of the program and any other factors deemed relevant by  
145 the department in its program review. Not later than January 1, 2020,  
146 the department shall submit a report, in accordance with the  
147 provisions of section 11-4a, containing recommendations on  
148 continuing, modifying or terminating the award program to the joint  
149 standing committee of the General Assembly having cognizance of  
150 matters relating to energy and technology. The department shall make

151 such report available on the department's Internet web site.

152 Sec. 3. Section 16-245a of the general statutes is amended by adding  
153 subsection (i) as follows (*Effective July 1, 2015*):

154 (NEW) (i) Notwithstanding the provisions of this section and the  
155 regulations adopted pursuant to subsection (f) of this section, the  
156 Public Utilities Regulatory Authority shall issue registration numbers  
157 to electric generating facilities that are eligible Class I renewable  
158 energy sources and derive electricity from either solar power, wind  
159 power or a fuel cell. The owner of any electric generating facility shall  
160 register with the authority, subject to section 16-33, using a self-  
161 certification process as prescribed by the authority and shall sign a  
162 statement under oath indicating that such owner has complied with  
163 the requirements and criteria for the issuance of a Class I renewable  
164 energy source registration number. Failure to comply with such  
165 requirements and criteria may result in the authority revoking such  
166 registration.

167 Sec. 4. Subsection (c) of section 16-243y of the general statutes is  
168 repealed and the following is substituted in lieu thereof (*Effective July*  
169 *1, 2015*):

170 (c) The department shall award grants or loans under the microgrid  
171 grant and loan pilot program to any number of recipients. To the  
172 extent possible, the amount of loans and grants awarded under the  
173 program shall be evenly distributed between small, medium and large  
174 municipalities. Such grants and loans [shall only be used to] may  
175 provide assistance to recipients for the cost of a microgrid's design,  
176 engineering services and interconnection infrastructure, and may  
177 provide low interest loans for new generation, energy storage or both  
178 for any such microgrid, provided such generation is derived from a  
179 Class I or Class III renewable energy source or a gas microturbine with  
180 an efficiency factor of 40. The department may establish any financing  
181 mechanism to provide or leverage additional funding to support the  
182 development of interconnection infrastructure, distributed energy  
183 generation and microgrids. [that is not limited to the cost of

184 interconnection infrastructure.]

185 Sec. 5. Subsection (g) of section 16-244u of the general statutes is  
 186 repealed and the following is substituted in lieu thereof (*Effective July*  
 187 *1, 2015*):

188 (g) A municipal, state or agricultural customer host shall be allowed  
 189 to aggregate all electric meters located on the property of one of the  
 190 virtual net metering facilities that are billable to such customer host.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>July 1, 2015</i>	16-19ff
Sec. 2	<i>July 1, 2015</i>	16a-40l(f)
Sec. 3	<i>July 1, 2015</i>	16-245a
Sec. 4	<i>July 1, 2015</i>	16-243y(c)
Sec. 5	<i>July 1, 2015</i>	16-244u(g)

**Statement of Legislative Commissioners:**

In Section 2(f)(1), the phrase "shall receive a payment" was deleted for internal consistency. In Section 2(f)(1)(A), the phrase "an award" was inserted for internal consistency. In Section 2(f)(1)(B), (C) and (D), the phrase "an award of" was inserted for internal consistency. In Section 2(f)(3), the phrase "a grant" was deleted, the phrase "an award" was inserted, the word "section" was deleted and the word "subsection" was inserted for internal consistency.

**ET**            *Joint Favorable Subst.*

The following Fiscal Impact Statement and Bill Analysis are prepared for the benefit of the members of the General Assembly, solely for purposes of information, summarization and explanation and do not represent the intent of the General Assembly or either chamber thereof for any purpose. In general, fiscal impacts are based upon a variety of informational sources, including the analyst's professional knowledge. Whenever applicable, agency data is consulted as part of the analysis, however final products do not necessarily reflect an assessment from any specific department.

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### ***OFA Fiscal Note***

#### ***State Impact:***

<b>Agency Affected</b>	<b>Fund-Effect</b>	<b>FY 16 \$</b>	<b>FY 17 \$</b>
Statewide (includes various state agencies)	All Funds - Cost	See Below	See Below

Note: All Funds=All Funds

#### ***Municipal Impact:***

<b>Municipalities</b>	<b>Effect</b>	<b>FY 16 \$</b>	<b>FY 17 \$</b>
All Municipalities	Cost	See Below	See Below

### ***Explanation***

The bill requires the Public Utilities Regulatory Authority (PURA) to issue registration numbers to electric generating facilities that are Class I renewable energy sources and derive electricity from solar power, wind power, or a fuel cell.

The bill also requires owners of any electric generating facility to register with PURA and sign a sworn statement that they complied with the Class I registration requirements.

Under the bill, it appears that owners with facilities that are not a Class I solar, wind or fuel cell facility would be unable to meet this requirement without falsely signing the statement. Owners who falsely report information to PURA are guilty of a class D felony, which is punishable by up to five years in prison, a fine of up to \$5,000 or both.

The bill would also eliminate a Department of Energy and Environmental Protection (DEEP) CHP incentive program and requires DEEP to establish a ratepayer-funded grant program for EDC end users to fund the capital costs of CHP systems. CHP systems



produce electricity and use the heat generated in the process for other purposes. The bill caps the program's awards at \$15 million per year and \$60 million in total. This ratepayer-funded program would increase costs to the state and municipalities as ratepayers.

The bill also eliminates the requirement for EDCs to allow submetering for behind the meter generation and instead limits it to instances where submeters are used to fairly allocate the costs of an individual's electricity usage. It also requires the meters of virtual net metering customers, who are aggregating their meters, to be on the same property as the virtual net metering facility. The changes in submetering and virtual net metering would not affect the state or municipalities as ratepayers.

The bill also expands the purposes for which loans from DEEP's Microgrid Grant and Loan Pilot Program can be used. The bill allows the program to also provide low interest loans for a microgrid's new generation and energy storage. Any new generation financed through the program must be a Class I renewable energy source, certain CHP and waste heat recovery systems, or a gas microturbine. The expanded purpose of the grants and loans program would only have the potential to change what projects receive funding and would not have a fiscal impact on DEEP.

### ***The Out Years***

The annualized ongoing fiscal impact identified above would continue into the future subject to inflation.

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**OLR Bill Analysis****sHB 6989*****AN ACT CONCERNING DISTRIBUTED ENERGY RESOURCES.*****SUMMARY:**

This bill makes various unrelated changes in the laws regarding electric submetering, grants for combined heat and power (CHP) systems, Class I renewable energy sources, microgrids, and virtual net metering. Among other things, it:

1. requires the Public Utilities Regulatory Authority (PURA) to allow, within certain limitations, electric submetering for customer-sided electric generation at certain commercial, industrial, multifamily residential, or multiuse buildings;
2. requires the Department of Energy and Environmental Protection (DEEP) to establish a ratepayer-funded grant program to fund the capital costs of certain CHP systems (in general, CHP systems produce electricity and use the heat generated in the process for other purposes like heating and cooling);
3. requires PURA to issue registration numbers for Class I renewable energy sources that generate electricity from solar or wind power or fuel cells;
4. expands DEEP's microgrid grant and loan pilot program to provide financing for certain electricity generation projects; and
5. requires the electric meters of virtual net metering customers who are aggregating their meters to be on the same property as the virtual net metering facility.

EFFECTIVE DATE: July 1, 2015

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**§ 1 – SUBMETERING**

In general, “submetering” allows a utility customer who pays for the utility services of other people to install individual submeters to measure each other person’s utility usage and charge them based on their submeter readings. (For example, a landlord who owns a four unit apartment building pays the water company for the building’s total water usage, but because each unit in the building has a submeter, the landlord charges each tenant for their particular portion of the total water bill.)

Current law requires electric distribution companies (EDCs) (i.e., Eversource and United Illuminating) to allow electric submeter installation under these circumstances, but also requires it at commercial, industrial, multifamily residential, or multiuse buildings where electricity or thermal energy is provided by a Class I energy source (e.g., solar, wind, or fuel cells) or a CHP system (i.e., submetering for “behind the meter” generation). The bill eliminates the requirement for EDCs to allow submetering for behind the meter generation and instead limits it to instances where submeters are used to fairly allocate the costs of an individual’s electricity usage provided by an EDC to the submetering entity. It also limits PURA’s related regulations to these instances. As under current law, this includes campgrounds, marinas, and certain other PURA-approved locations.

The bill requires PURA to allow submetering for behind the meter generation provided by an approved entity to commercial, industrial, multifamily residential, or multiuse buildings where the power is generated by a Class I renewable energy source or a CHP system generating under three megawatts (MW). (In practice, PURA is conducting a proceeding to develop criteria and procedures to allow such submetering.) Each entity that PURA approves for such submetering must provide electricity to its customers under the rate schedule that would apply to the customers’ rate class if they were served by an EDC under the net metering law. (Net metering allows customers with certain renewable energy systems to “run the meter backwards” when they generate more power than they use.)

The bill specifies that it does not allow an entity that is submetering for behind the meter generation to charge its customers for any (1) usage for common areas of a commercial, industrial, multifamily residential, or multiuse building or (2) other usage not solely used by the customer's account.

## **§ 2 – CHP GRANT PROGRAM**

The bill eliminates a DEEP CHP financial incentive program under current law (which, in practice, was never implemented) and requires DEEP, by January 1, 2016, to establish a program to grant awards to EDC end users to fund the capital costs of CHP systems with less than a 20 MW nameplate capacity. The program must be subject to review and approval by the Energy and Technology Committee. DEEP must submit a report on the program to the committee, which must advise DEEP of its approval or any modifications within 60 calendar days. (The bill does not specify what happens if the committee does not approve the program within 60 days.)

The bill requires the program to provide a one-time, nonrecurring award to an eligible project, or a combination of eligible projects, that (1) account for an aggregated total nameplate capacity of 30 MW and (2) the DEEP commissioner deems consistent with the state's Comprehensive Energy Strategy. The amount of the award depends on when the CHP system becomes operational, according to the following schedule:

1. \$450 per kilowatt (kW) for systems that become operational on or before January 1, 2016;
2. \$250 per kW for systems that become operational after January 1, 2016 and on or before January 1, 2017;
3. \$150 per kW for systems that become operational after January 1, 2017 and on or before January 1, 2018; and
4. \$100 per kW for systems that become operational after January 1, 2018.

The bill caps the program's awards at \$15 million per year and \$60 million in total. It also requires award payments to be made at the time the system becomes operational. (Presumably, this provision prohibits the program from awarding grants to any systems that became operational before the program is implemented.)

The bill also allows DEEP to award an unspecified "premium" to CHP systems that (1) serve critical facilities (e.g., hospitals or police stations) in a microgrid or (2) result in avoided costs for an EDC's infrastructure development plan. (It is unclear whether this additional premium is included under the bill's award cap or if its costs can be recovered through electric rates.)

### ***Additional Benefits***

The bill requires projects accepted for an award under the program to qualify for a waiver of the (1) backup power rate charged by EDCs and (2) requirement to reduce federally mandated congestion charges (Since this requirement applies to a separate PURA-administered program to fund customer-side distributed resources, it does not appear that it would have applied to CHP projects under the bill.) Any purchase of natural gas for a CHP system installed under this program must not include the natural gas company's retail delivery charge under a law that requires EDCs to provide a rebate for such charges and recover the costs through the federally mandated congestion charge on electric bills.

The bill requires all renewable energy credits (RECs) associated with a project that receives an award to be the property of the respective EDC (presumably, the EDC in whose service area the project is located). Each EDC must sell the RECs to serve ratepayers' long-term interests. In general, a REC is created when certain renewable or clean energy facilities generate a certain amount of electricity. The RECs can be sold to EDCs and electric suppliers and used to meet the requirement for them to procure a portion of their electricity from renewable and clean energy sources.

### ***Program Funding***

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The bill requires the cost of the awards to be recovered through a non-bypassable rate component determined by PURA. (The bill does not specify how PURA must determine or allocate this rate to (presumably) electric ratepayers.)

Under the bill, revenue from the awards must not be included in an EDC's earnings for purposes of determining whether the EDC's rates are just and reasonable during rate cases. (It is unclear, but presumably this means that the costs of the awards recovered through an EDC's rates cannot be included when determining an EDC's rates).

The bill also requires each EDC to be made whole for all of its reasonable costs incurred implementing the program through a fully reconciling (adjustable), non-bypassable rate. (Presumably, this allows EDCs to recover their costs for waiving backup power rates and providing rebates for an award winner's natural gas retail delivery charges.)

### ***DEEP Assessment***

The bill requires DEEP, beginning by January 1, 2019, to biannually assess the number and type of retail CHP systems deployed in the state and financed under the program. DEEP must consider the effect on all customer rates and determine the program's cost-effectiveness and any other factors it deems relevant. It must submit a report to the Energy and Technology Committee by January 1, 2020 with recommendations on continuing, modifying, or ending the program. The report must also be available on DEEP's website.

### **§ 3 – CLASS I RENEWABLE ENERGY REGISTRATION NUMBERS**

The bill requires PURA to issue registration numbers to electric generating facilities that are Class I renewable energy sources and derive electricity from solar power, wind power, or a fuel cell. (By law, a Class I renewable energy source is electricity derived from, among other things, solar power, wind power, fuel cells, landfill methane gas, anaerobic digestion or other biogas, and certain run-of-the-river hydropower facilities.)

The bill requires the owner of any electric generating facility to (1) register with PURA using a PURA-prescribed self-certification process and (2) sign a statement under oath indicating that the owner has complied with the requirements and criteria for issuing a Class I renewable energy source registration number. Under the bill, owners who falsely report information to PURA are guilty of a class D felony, which is punishable by up to five years in prison, a fine of up to \$5,000, or both. Failure to comply with the requirements and criteria may result in PURA revoking the registration. Since the registration requirement applies to the owner of any electric generating facility, it appears that owners of facilities that are not Class I solar, wind, or fuel cell facilities would be unable to meet the requirement without falsely signing the statement, a class D felony under the bill (see COMMENT).

#### **§ 4 – MICROGRID GRANT AND LOAN PILOT PROGRAM**

The bill expands the purposes for which loans from DEEP's Microgrid Grant and Loan Pilot Program can be used. By law, a "microgrid" is a group of interconnected electricity users and generators that (1) is within clearly defined boundaries that acts as a single controllable entity in respect to the larger grid and (2) can operate as either a part of the grid or independent of it (e.g., a fuel cell that powers a hospital but can also power a nearby municipal center during a power outage).

Current law limits grants and loans from the program to paying for a microgrid's design, engineering, and interconnection infrastructure costs. The bill also allows the program to provide low interest loans for a microgrid's new generation, energy storage, or both. Any new generation financed through the program must be a Class I or Class III (certain CHP and waste heat recovery systems) renewable energy source or a gas microturbine with an energy efficiency factor of 40.

#### **§ 5 – VIRTUAL NET METERING**

In general, virtual net metering allows certain customers with virtual net metering facilities (e.g., solar panels) to (1) receive billing credits for any excess electricity their facility produces and (2) assign

any excess billing credits to reduce the electric costs at other designated meters. Current law allows virtual net metering customers to aggregate all of the electric meters billable to them. The bill requires such aggregated meters to be located on the same property as the customer's virtual net metering facility.

## **COMMENT**

### ***Class I Registration Requirement***

The bill requires PURA to issue registration numbers for Class I renewable energy sources that generate electricity from solar power, wind power, or fuel cells. However, it also requires owners of *any* electric generating facility to register with PURA and sign a sworn statement that they complied with the Class I registration requirements. Owners with facilities that are not a Class I solar, wind, or fuel cell facilities will not be able to meet this requirement without falsely signing the statement, a class D felony under the bill.

## **COMMITTEE ACTION**

Energy and Technology Committee

Joint Favorable Substitute

Yea 13      Nay 10      (03/24/2015)